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- ☐ Advanced

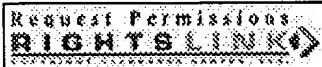
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Shared-memory networks: description, history, and application in real-time systems

Valentino, G.J.

SYSTRAN Corp., Dayton, OH, USA;

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Abstract:

Real-time systems, such as test instrumentation, hardware and person in-the-loop simulators, virtual reality environments, aircraft avionics suites, and process control systems have evolved significantly during the last few years, keeping pace with technologies and attempting to provide the required speed and bandwidth interconnectivity between the various sensors, processors, and other nodes which comprise these systems. To support such applications, shared-memory network technology provides an attractive alternative to the more conventional approach which utilizes single or multiple CPU's contained within the same chassis. This paper describes the history, technology, current trends, and selected applications of memory networks in real-time simulation, testing, and computational applications.

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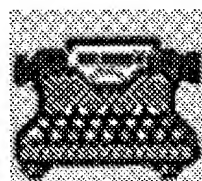
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2003 Publications

-  Harrison, Stella V , Kramer, Lynda J. , Bailey, Randell E. , Jones, Denise R. , Young, Steven D. , Harrah, Steven D. , Arthur, Jarvis J. and Parrish, Russell V.
Initial SVS Integrated Technology Evaluation Flight Test Requirements and Hardware Architecture *NASA TM 2003 212644*
-  Charles T. Howell III, Kevin J. Shelton, Bruce D. Fisher, Donna A. Gallaher, Spencer L. Johnston, Homer F. Rush Jr., Carey D. Smith, Dominic R. Trombetta Ralph Kimbrel
THE NASA LANGLEY RESEARCH CENTER'S GENERAL AVIATION BASELINE RESEARCH SYSTEM
-  Kenny, P Sean
Rapid Prototyping of an Aircraft Model in an Object-Oriented Simulation *AIAA-2003-5816*
-  Kenny, P Sean
Simulating the ARES Aircraft in the Mars Environment *AIAA-2003-6579*
-  Madden, M. M. , Neuhaus, J.:
A Design for Composing and Extending Vehicle Models *AIAA-2003-5458*
-  Guo, L ; Cardullo, F; Telban, R; Houck, J; and Kelly, L
The Results of a Simulator Study to Determine the Effects on Pilot Performance of Two Different Motion Cueing Algorithms and Various Delays, Compensated and Uncompensated *Research Papers of the Link Foundation Fellows AIAA-2003-5676*

2002 Publications



Telban, R.J.

A Nonlinear Motion Cueing Algorithm with a Human Perception Model *Research Papers of the Link Foundation Fellows*



Telban, Robert J. and Cardullo, Frank M.

A Nonlinear, Human-Centered Approach to Motion Cueing with a Neurocomputing Solver
AIAA-2002-4692

2001 Publications



Chung, V. I.; and Hutchinson, B. K.:

A Unique Software System for Simulation-to-Flight Research, *AIAA-2001-4057*.



Howell, C. T., III

Research Flight Management System B-757 Baseline Hardware Configuration



Madden, M. M.:

Examining Reuse in LaSRS++-Based Projects, *AIAA-2001-4119*.



Neuhaus, J.:

An Object-Oriented Sensor and Sensor System Design, *AIAA-2001-4123*.



Sugden, P. C.; Rau, M. A.; and Kenney, P. S.:

Platform-Independence and Scheduling in a Multi-Threaded Real-Time Simulation, *AIAA-2001-4244*.



Telban, R.; and Cardullo, F.:

An Integrated Model of Human Motion Perception with Visual-Vestibular Interaction,
AIAA-2001-4249.

2000 Publications



Derry, S.; and Maddalon, J.:

Implementing Dynamic System Models in the ASSET Simulation Framework, *AIAA-2000-4393*.



Kenney, P. S.:

Managing the Playback and Recording of Simulation Models in an Object-Oriented Simulation, *AIAA-2000-4390*.



Maddalon, J.; and Derry, S.:

Data Management in the ASSET Simulation Framework, *AIAA-2000-4500*.



Madden, M. M.:

An Object-Oriented Interface for Simulink Models, *AIAA-2000-4391*.



Madden, M. M.:
The Langley Standard Real-Time Simulation in C++ (LaSRS++) .



Neuhaus, J.:
An Object-Oriented Design for Trim, *AIAA-2000-4388*.



Ragsdale, W. A.:
A Generic Landing Gear Dynamics Model for LaSRS++, *AIAA-2000-4303*.



Smith, R. M.:
A Description of the Cockpit Motion Facility and the Research Flight Deck Simulator, *AIAA-2000-4174*.



Telban, R. J.; Cardullo, F. M.; and Guo, L.:
Investigation of Mathematical Models of Otolith Organs for Human Centered Motion Cueing Algorithms, *AIAA-2000-4291*.

1999 Publications



Cardullo, F. M.;
Telban, R. J.; and Houck, J. A.: **Motion Cueing Algorithms: A Human Centered Approach, *5th International Symposium on Aeronautical Sciences, Zhukovsky, Russia*.**



Cunningham, K.:
Use of the Mediator Design Pattern in the LaSRS++ Framework, *AIAA-99-4336*.



Geyer, D. W.:
The Use of Multiple Threads in an Object-Oriented Real-Time Simulation, *AIAA-99-4338*.



Glaab, P. C.; and Madden, M. M.:
A Generic Object-Oriented Implementation for Flight Control Systems, *AIAA-99-4339*.



Kaplan, J. A.; McManus, J.; and Bynum, W. L.:
Automated Concurrent Blackboard System Generation in C++, *NASA TM-1999-209128*.



Kenney, P. S.; and Geyer, D. W.:
Using Abstractions to Create a Portable Object-Oriented Simulation, *AIAA-99-4340*.



Kudlinski, K. E.; and Ragsdale, W. A.:
Design and Development of Lateral Flight Director, *NASA/TM-1999-208957*.



Madden, M. M.:
An Object-Oriented Design for the Rapid Modification of Filters, *AIAA-99-4342*.



Madden, M. M.:
An Overview of LaSRS++, *AIAA Panel on Real-Time Software Architecture*.



Telban, R. J.; Cardullo, F. M.; and Houck, J. A.:
Developments in Human Centered Cueing Algorithms for Control of Flight Simulator

Motion Systems, AIAA-99-4328.



Wentzel, K. C.; Galloway, R. T.; Houck, J. A.; Nalepka, J. P.; and Burkley, J.:
Modeling and Simulation – The Year In Review, *Aerospace America*, December 1999.

1998 Publications



Cunningham, K.; Kenney, P. S.; Leslie, R. A.; Geyer, D. W.; Madden, M. M.; and Glaab, P. C.:
Simulation of a F/A-18 Drop Model Using the LaSRS++ Framework, AIAA-98-4160.



Geyer, D. W.; Madden, M. M.; Glaab, P. C.; Cunningham, K.; Kenney, P. S.; and Leslie, R. A.:
Managing Shared Memory Spaces in An Object-Oriented Real-Time Simulation, AIAA-98-4532.



Glaab, P. C.; Cunningham, K.; Kenney, P. S.; Leslie, R. A.; Geyer, D. W.; and Madden, M. M.:
A Method to Interface Auto-Generated Code into an Object-Oriented Simulation Framework, AIAA-98-4531.



Kenney, P. S.; Leslie, R. A.; Geyer, D. W.; Madden, M. M.; Glaab, P. C.; and Cunningham, K.:
Using Abstraction to Isolate Hardware in an Object-Oriented Simulation, AIAA-98-4533.



Leslie, R. A.; Geyer, D. W.; Cunningham, K.; Glaab, P. C.; Kenney, P. S.; and Madden, M. M.:
LaSRS++ - An Object-Oriented Framework for Real-Time Simulation of Aircraft, AIAA-98-4529.



Madden, M. M.; Glaab, P. C.; Cunningham, K.; Leslie, R. A.; Kenney, P. S.; and Geyer, D. W.:
Constructing a Multiple-Vehicle, Multiple-CPU Simulation Using Object-Oriented, AIAA-98-4530.

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